

**A. Permit Certificate**

**INDUSTRIAL  
WASTEWATER REUSE PERMIT  
LA-000161-01**

U.S. Department of Energy – Idaho Operations, 1955 Fremont Avenue, Idaho Falls, Idaho 83401-1220 and Battelle Energy Alliance, LLC, P.O. Box 1625, Idaho Falls, Idaho 83415-6146, ARE HEREBY AUTHORIZED TO CONSTRUCT, INSTALL, AND OPERATE A WASTEWATER REUSE TREATMENT SYSTEM IN ACCORDANCE WITH THE RULES FOR RECLAMATION AND REUSE OF MUNICIPAL AND INDUSTRIAL WASTEWATER (IDAPA 58.01.17), THE WATER QUALITY STANDARDS AND WASTEWATER TREATMENT REQUIREMENTS (IDAPA 58.01.02), THE GROUND WATER QUALITY RULE (IDAPA 58.01.11), AND ACCOMPANYING PERMIT, APPENDICES, AND REFERENCE DOCUMENTS. **This permit is applicable to the Idaho National Laboratory (INL) Reactor Technology Complex (RTC) Cold Waste Pond located in Butte County, Township 3 North, Range 29 East, Section 14** THIS PERMIT IS EFFECTIVE FROM THE DATE OF SIGNATURE AND EXPIRES ON (60 months from issue date).

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James Johnston  
Idaho Falls Regional Administrator  
Idaho Department of Environmental Quality

Date Issued: \_\_\_\_\_

**IDAHO DEPARTMENT OF ENVIRONMENTAL QUALITY**

**Idaho Falls Regional Office  
900 North Skyline, Suite B  
Idaho Falls, Idaho 83402  
(208) 528-2650**

**POSTING ON SITE RECOMMENDED**

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### References

1. Plan of Operation (Operation and Maintenance Manual)
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The Sections, Appendices, and Reference Documents listed on this page are all elements of Wastewater Reuse Permit LA-000161-01 and are enforceable as such. This permit does not relieve U.S. Department of Energy and Battelle Energy Alliance, LLC, hereafter referred to as the permittee, from responsibility for compliance with other applicable federal, state or local laws, rules, standards or ordinances.

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## C. Abbreviations, Definitions

Ac-in	Acre-inch. The volume of water or wastewater to over 1 acre of land to a depth of 1 inch. Equal to 27,154 gallons.
bgs	Below Ground Surface
BMP or BMPs	Best Management Practices
CWP	Cold Waste Pond
DEQ or the Department	Idaho Department of Environmental Quality
Director	Director of the Idaho Department of Environmental Quality, or the Directors Designee, i.e. Regional Administrator
GW	Ground Water
GWQR	IDAPA 58.01.11 "Ground Water Quality Rule"
Guidance	Guidance for Land Application of Municipal and Industrial Wastewater, DEQ, updated 2006
HMU	Hydraulic Management Unit (Serial Number designation is MU)
IDAPA	Idaho Administrative Procedures Act.
INL	Idaho National Laboratory
lb/ac-day	Pounds (of constituent) per acre per day
MG	Million Gallons (1 MG = 36.827 acre-inches)
MGA	Million Gallons Annually (for the Reporting Year)
NVDS	Non-Volatile Dissolved Solids (= Total Dissolved Solids less Volatile Dissolved Solids)
O&M manual	Operation and Maintenance Manual, also referred to as the Plan of Operation
RTC	Reactor Technology Complex
SW	Surface Water
TDS	Total Dissolved Solids or Total Filterable Residue
TDIS	Total Dissolved Inorganic Solids—The summation of chemical concentration results in mg/L for the following common ions: calcium, magnesium, potassium, sodium, chloride, sulfate, and 0.6 times alkalinity (alkalinity expressed as calcium carbonate). Nitrate, silica, and fluoride shall be included if present in significant quantities (i.e. > 5 mg/L each).
USDOE	U.S. Department of Energy
USGS	United States Geological Survey
Reporting Year	The reporting year begins with the non-growing season and extends through the growing season of the following year, typically November 01 – October 31. For example, the 2003 Reporting Year was November 01, 2005 through October 31, 2006.
WW	Wastewater applied to the land application treatment site

## D. Facility Information

<b>Legal Name of Permittee</b>	United States Department of Energy (USDOE) and Battelle Energy Alliance, LLC
<b>Types of Wastewater</b>	Non-contact cooling tower blow-down, once-through cooling water for air conditioning units, coolant water from air compressors, secondary system drains, and other non-radioactive drains
<b>Method of Treatment</b>	Land application to percolation pond
<b>Type of Facility</b>	Federal (USDOE) Facility located at the Idaho National Laboratory (INL). The Cold Waste Pond is associated with the Reactor Technology Complex.
<b>Facility Location</b>	The Cold Waste Pond is located near the southeast corner of the RTC at the INL which is approximately 47 miles west of Idaho Falls, Idaho.
<b>Legal Location</b>	Township 3N, Range 29E, Section 14
<b>County</b>	Butte
<b>USGS Quad</b>	Circular Butte 3 SW
<b>Soils on Site</b>	Well- to- poorly graded gravel to gravelly sand, with minor amounts of silt and clay; derived from alluvial deposits of the Big Lost River.
<b>Depth to Ground Water</b>	<ul style="list-style-type: none"> <li>- Shallow perched water zone is located approximately 50 ft below ground surface.</li> <li>- Deep perched water zone is located approximately 140-200 ft below ground surface.</li> <li>- Regional aquifer (Snake River Plain Aquifer) is located approximately 480 ft below ground surface.</li> </ul>
<b>Beneficial Uses of Ground Water</b>	Drinking Water, Irrigation Water for Agriculture, Industrial
<b>Nearest Surface Water</b>	The Big Lost River is located approximately 4,480 feet from the southeast corner of the Reactor Technology Complex.
<b>Beneficial Uses of Surface Water</b>	Cold Water Communities, Salmon Spawning, Primary Contact Recreation, Domestic Water Supply, Special Resource Water (IDAPA 58.01.02.150.20)

<b>Responsible Officials</b> <b>Mailing Address</b> <b>Phone / Fax</b>	<p>Roger F. Wilbur  Assistant Manager, DOE-ID  1955 Fremont Ave  Idaho Falls, Idaho 83401-1203  Tel: (208) 526-3508 Fax: (208) 536-1926</p> <p>David J. Richardson  Associate Laboratory Director  Battelle Energy Alliance  P.O. Box 1625  Idaho Falls, Idaho 83415-6146</p>
<b>Facility Contacts</b> <b>Mailing Address</b> <b>Phone / Fax</b>	<p>Richard Kauffman  Environmental Technical Support  U.S. Department of Energy- Idaho Operations Office  1955 Fremont Ave  Idaho Falls, Idaho 83401-1216  Tel: (208) 526-7177 Fax: (208) 526-1926</p> <p>Carolyn Mascareñas, P.E.  Environmental Compliance Director  Battelle Energy Alliance, LLC  P.O. Box 1625  Idaho Falls, Idaho 83415-3405  Tel: (208) 526-0633 Fax: (208) 526-3149</p>
<p>Additional Facility Information: The Department of Energy is a federal agency of the Executive Branch. By applying for and accepting this wastewater reuse permit, USDOE reserves and does not waive any rights, authority, claim or defenses, including both sovereign immunity and federal preemption under the Atomic Energy Act (AEA), that it may have or wish to pursue in any administrative, judicial or other proceeding.</p> <p>USDOE asserts, with respect to AEA radioactive materials, that it is a self-regulating entity under the AEA. As such, the approval granted by DEQ to the permittee to land apply wastewater, as contained in this permit, does not authorize the application or disposal of AEA radioactive materials that may occur during the wastewater land application activities authorized by this permit.</p>	

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### **E. Compliance Schedule for Required Activities**

The Activities in the following table shall be completed on or before the Completion Date unless modified by the Department in writing.

<b>Compliance Activity Number Completion Date</b>	<b>Compliance Activity Description</b>
<b>CA-161-01</b> <b>Plan of Operation</b> <b>Six (6) Months after Permit Issuance</b>	A final Operation and Maintenance (O&M) Manual for the wastewater reuse facility, incorporating the requirements of this permit shall be submitted to the Department for review and approval. The manual shall reference other written procedures required for the operation and maintenance of the cold waste pond system Upon approval, the Manual shall be incorporated by reference into this permit and shall be enforceable as a part of this permit.

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## F. Permit Limits and Conditions

The Permittee is allowed to discharge effluent to the Cold Waste Percolation Pond as prescribed in the Table below and in accordance with all other applicable permit conditions and schedules.

Category	Permit Limits and Conditions
Type of Wastewater	Industrial Wastewater which consists primarily of non-contact cooling tower blow-down, once-through cooling water for air conditioning units, coolant water from air compressors, secondary system drains, and other non-radioactive drains.
Application Site Area	One (1) percolation pond, with two cells, 180 by 430 feet across the top of the berms and 10 feet deep. Total surface area of site is approximately 3.55 acres. See Appendix 2 for site maps.
Application Season	Year round
Annual Reporting Year for Loading Rates	November 1 through October 31
Maximum Hydraulic Loading Rate	300 Million Gallons Annually
Maximum Effluent Constituent Concentrations	<p>The maximum effluent constituent concentrations for Total Nitrogen and Total Suspended Solids monitored at TRA-764 shall not exceed the following:</p> <p>Total Suspended Solids (TSS), which includes organic and inorganic particulate matter, shall not exceed a thirty (30) day average concentration of one hundred (100) mg/L.</p> <p>Nitrogen (Total as N) shall not exceed a thirty (30) day average concentration of twenty (20) mg/L.</p>

Category	Permit Limits and Conditions
Ground Water	<p>Permittee shall be in compliance with the <i>Ground Water Quality Rule</i> (GWQR), IDAPA 58.01.11, at the following ground water monitoring compliance points for the waste materials authorized for disposal under this permit. See Section H for further information concerning AEA-regulated materials.</p> <p>GW-016101 (TRA-03) - Regional Aquifer  GW-016102 (USGS-065) - Regional Aquifer  GW-016103 (TRA-07) - Regional Aquifer  GW-016104 (USGS-076) - Regional Aquifer  GW-016105 (TRA-08) - Regional Aquifer  GW-016106 (Middle-1823) - Regional Aquifer</p>
Buffer Zones	<p>The INL-TRC facility is a restricted facility with no public access. These restrictions shall remain in force for the duration of this permit.</p>
Wellhead Protection	<p>Existing domestic well locations have been reviewed in the INEEL Wellhead Protection Program (October 1997) and are acceptable per the requirement of the <i>Well Location Acceptability Analysis</i> (WLAA) contained in the <i>DEQ Handbook for Land Application of Municipal and Industrial Wastewater, April 1996</i> (Handbook). New domestic wells shall be reviewed for acceptability using the WLAA.</p>
Construction Plans	<p>Prior to construction or modification of all wastewater facilities associated with the land application system or expansion, detailed plans and specifications shall be reviewed and approved by DEQ. Within 30 days of completion of construction, the permittee shall submit as-built plans for review and approval.</p>
Radiological Information	<p>The Permittee has provided documentation stating that: 1) the radioactivity related to the INL-RTC Cold Waste Pond (CWP) is derived from Atomic Energy Act sources and is thereby regulated under that law; and 2) INL has protective systems in place to ensure radioactivity will not be released into the percolation ponds.</p>



## **G. Monitoring Requirements**

- 1) Pursuant to IDAPA 58.01.02.090.01 and IDAPA 58.01.11.200.01.c., appropriate analytical methods, as given in 40 CFR 136, 40 CFR 141, 40 CFR 143, or as approved by the Idaho Department of Environmental Quality, shall be employed. A description of approved sample collection methods, appropriate analytical methods and companion QA/QC protocol shall be included in the Operation and Maintenance Manual or other written procedures.
- 2) The permittee shall monitor and measure parameters as stated in the Facility Monitoring Table in this section.
- 3) Samples shall be collected at times and locations that represent typical environmental and process parameters being monitored.
- 4) Unless otherwise specified in this permit, influent and effluent wastewater samples shall be 24 hour flow-proportioned samples of at least 8 aliquots collected either manually or automatically in a manner that yields a representative sample.
- 5) Ground Water Monitoring Procedure: Ground Water Monitoring Wells shall be purged a minimum of three casing volumes and/or until field measurements for pH, specific conductance and temperature meet the following conditions: two successive temperature values measured at least five minutes apart are within one degree Celsius of each other, pH values for two successive measurements measured at least five minutes apart are within 0.2 units of each other, and two successive specific conductance values measured at least five minutes apart are within 10% of each other. This procedure will determine when the wells are suitable for sampling for constituents required by the permit. Other procedures, such as low flow sampling, may be considered by DEQ for approval. The static water level shall be measured prior to pumping or sampling the ground water. Wells with inadequate sampling volume shall be reported as "Dry" in the Annual Report.
- 6) Soil Monitoring Procedure: None
- 7) Reporting of monitoring requirements is described in Section H, Standard Reporting Requirements.
- 8) Monitoring locations are defined in Appendix 1, "Environmental Monitoring Serial Numbers".

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## Facility Monitoring Table

Frequency	Monitoring Point	Description/Type of Monitoring	Parameters
Daily	Effluent prior to discharge into percolation ponds (TRA-764)	Flow Meter	Gallons per day and million gallons per year to each Hydraulic Management Unit (HMU)
Monthly	Effluent prior to discharge into percolation pond (TRA-764)	Grab Sample  Composite Sample, see Section G, Note 4	Nitrite + Nitrate Nitrogen, Total Suspended Solids, Total Dissolved Solids, Chloride, Electrical Conductivity, Arsenic, Barium, Cadmium, Chloride, Chromium, Cobalt, Copper, Fluoride, Iron, Manganese, Mercury, Selenium, Silver, and Sulfate
Semi-Annually in April and October	All ground water monitoring points in Appendix 1.	See Section G, Note 5	Water Table Depth (below ground surface), Water Table Elevation (above mean sea level), pH, Total Kjeldahl Nitrogen, Nitrite-Nitrogen, Nitrate-Nitrogen, Total Dissolved Solids, Aluminum, Antimony, Arsenic, Barium, Cadmium, Chloride, Chromium, Cobalt, Copper, Fluoride, Iron, Manganese, Mercury, Selenium, Silver, and Sulfate
Annually	All flow measurement locations.	Flow measurement calibration of all flows to land application.	Document the flow measurement calibration of all flow meters and pumps used directly or indirectly to measure all wastewater applied to each HMU.

## H. Standard Reporting Requirements

- 1.) The Permittee shall submit an Annual Wastewater Reuse Site Performance Report ("Annual Report") prepared by a competent environmental professional no later than March 1 of each year, which shall cover the previous reporting year from November 1 through October 31. The Annual Report shall include an interpretive discussion of monitoring data (ground water, soils, hydraulic loading, wastewater etc.) with particular respect to environmental impacts by the facility. The Annual Report shall include ground water contour maps indicating depth to water, water table elevation, and direction of flow for each monitoring period, utilizing the monitoring wells specified in Appendix 1 of this permit.
- 2.) The annual report shall contain the results of the required monitoring as described in *Section G. Monitoring Requirements*. The permittee shall summarize and submit all monitoring data generated by the facility as specified in *Section G* to the Department with the annual report. If the permittee monitors any parameter for compliance purposes more frequently than required by this permit, the results of the additional compliance monitoring shall be included in this summary and submitted in the annual report. Data collected in support of the daily operation of the treatment system shall not be included.
- 3.) The annual report shall contain a discussion of all noncompliance events, reported under Section I.7 of this permit, which occurred during the permit reporting year. The discussion shall include the cause of each noncompliance, the corrective actions implemented to reduce or eliminate each noncompliance, and whether or not each noncompliance has been corrected. For the noncompliance events that have not been corrected, the annual report shall present further corrective actions that will be implemented to reduce or eliminate the noncompliance, including an implementation plan and schedule for the corrective actions and an expected time period when the facility expects to return to compliance.
- 4.) One copy of the annual report shall be submitted to the Engineering Manager at the Idaho Falls Regional DEQ Office.

Greg Eager, P.E.  
Idaho Falls Regional Office  
900 N. Skyline, Suite B  
Idaho Falls, ID 83402  
208-528-2650

One copy of the annual report shall also be mailed to:

Richard Huddleston, P.E.  
Wastewater Program Manager  
1410 N. Hilton  
Boise, ID 83706  
208-373-0561

- 5.) Notice of completion of any work described in *Section E. Compliance Schedule for Required Activities* shall be submitted to the Department within 30 days of activity completion. The status of all other work described in Section E shall be submitted with the Annual Report.
- 6.) The permittee agrees to provide to the Department the results of ground water radiological monitoring with respect to the INL-RTC Cold Waste Pond that is performed to fulfill Department of Energy requirements under the Atomic Energy Act. The permittee agrees to provide the results with the Annual Report.
- 7.) The permittee agrees to provide to the Department the results of radiological monitoring of the effluent, prior to discharge into the percolation pond, with respect to the INL-RTC Cold Waste Pond that is performed to fulfill Department of Energy requirements under the Atomic Energy Act. The permittee agrees to provide the results with the Annual Report.

## I. Standard Permit Conditions: Procedures and Reporting

1. The permittee shall at all times properly maintain and operate all structures, systems, and equipment for treatment, operational controls and monitoring, which are installed or used by the permittee to comply with all conditions of the permit or the Wastewater Reuse Permit Regulations, in conformance with a DEQ approved, current Plan of Operations (Operations and Maintenance Manual) which describes in detail the operation, maintenance, and management of the wastewater treatment system. This Plan of Operations shall be updated as necessary to reflect current operations.
2. Wastewater(s) or recharge waters applied to the land surface must be restricted to the premises of the application site unless permission has been obtained from the DEQ authorizing a discharge into the waters of the State as stated in IDAPA 58.01.02.600.02.
3. Wastewater must not create a public health hazard or nuisance condition as stated in IDAPA 58.01.02.600.03.
4. All waste solids, including dredgings and sludges, shall be utilized or disposed in a manner which will prevent their entry, or the entry of contaminated drainage or leachate therefrom, into the waters of the state such that health hazards and nuisance conditions are not created; and to prevent impacts on designated beneficial uses of the ground water and surface water. If waste solids are generated by the permittee, a Waste Solids Management Plan shall be submitted to the Department for review and approval. The permittee's management of waste solids shall be governed by the terms of the DEQ approved Waste Solids Management Plan, which upon approval shall be an enforceable portion of this permit.
5. If the permittee intends to continue operation of the permitted facility after the expiration of an existing permit, the permittee shall apply for a new permit at least six months prior to the expiration date of the existing permit in accordance with the Waste Water Reuse Permit Regulations and include recent seepage tests on all lagoons per latest DEQ procedures.
6. The permittee shall allow the Director of the Idaho Department of Environmental Quality or the Director's designee (hereinafter referred to as Director), consistent with Title 39, Chapter 1, Idaho Code, to:
  - a. Enter the permitted facility,
  - b. Inspect any records that must be kept under the conditions of the permit.
  - c. Inspect any facility, equipment, practice, or operation permitted or required by the permit.
  - d. Sample or monitor for the purpose of assuring permit compliance, any substance or any parameter at the facility.
7. The permittee shall report to the Director under the circumstances and in the manner specified in this section:
  - a. In writing thirty (30) days before any planned physical alteration or addition to the permitted facility or activity if that alteration or addition would result in any significant change in information that was submitted during the permit application process.
  - b. In writing thirty (30) days before any anticipated change which would result in non-compliance with any permit condition or these regulations.
  - c. Orally within twenty-four (24) hours from the time the permittee became aware of any non-compliance which may endanger the public health or the environment at telephone numbers provided in the permit by the Director (see below)

DEQ Idaho Falls Regional Office: 208-528-2650  
Emergency 24 Hour Number: 1-800-632-8000

- d. In writing as soon as possible but within sixty (60) days of the date the permittee knows or should know of any non-compliance unless extended by the DEQ. This report shall contain:
  - i. A description of the non-compliance and its cause;
  - ii. The period of non-compliance including to the extent possible, times and dates and, if the non-compliance has not been corrected, the anticipated time it is expected to continue; and
  - iii. Steps taken or planned to reduce or eliminate reoccurrence of the non-compliance.

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## **I. Standard Permit Conditions: Procedures and Reporting**

- e. In writing as soon as possible after the permittee becomes aware of relevant facts not submitted or incorrect information submitted, in a permit application or any report to the Director. Those facts or the correct information shall be included as a part of this report.
- 8. The permittee shall take all necessary actions to prevent or eliminate any adverse impact on the public health or the environment resulting from permit noncompliance.
- 9. The permittee shall determine (on an on-going basis) if any noxious weed problems relate to the permitted sites. Noxious weeds shall be controlled in accordance with Idaho Code Title 22, Chapter 24. Also address these control operations in an update to the Operations and Maintenance Manual.

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## **J. Standard Permit Conditions: Modifications, Violation, and Revocation**

1. The permittee shall furnish to the Director within reasonable time, any information including copies of records, which may be requested by the Director to determine whether cause exists for modifying, revoking, re-issuing, or terminating the permit, or to determine compliance with the permit or these regulations.
2. Both minor and major modifications may be made to this permit as stated in IDAPA 58.01.17.700.01 and 02 with respect to any conditions stated in this permit upon review and approval of the DEQ.
3. Whenever a facility expansion, production increase or process modification is anticipated which will result in a change in the character of pollutants to be discharged or which will result in a new or increased discharge that will exceed the conditions of this permit, or if it is determined by the DEQ that the terms or conditions of the permit must be modified in order to adequately protect the public health or environment, a request for either major or minor modifications must be submitted together with the reports as described in Section I. *Standard Reporting Requirements*, and plans and specifications for the proposed changes. No such facility expansion, production increase or process modification shall be made until plans have been reviewed and approved by the DEQ and a new permit or permit modification has been issued.
4. Permits shall be transferable to a new owner or operator provided that the permittee notifies the Director by requesting a minor modification of the permit before the date of transfer.
5. Any person violating any provision of the Wastewater Reuse Permit Regulations, or any permit or order issued thereunder shall be liable for a civil penalty not to exceed ten thousand dollars (\$10,000) or one thousand dollars (\$1,000) for each day of a continuing violation, whichever is greater. In addition, pursuant to Title 39, Chapter 1, Idaho Code, any willful or negligent violation may constitute a misdemeanor.
6. The Director may revoke a permit if the permittee violates any permit condition or the Wastewater Reuse Permit Regulations.
7. Except in cases of emergency, the Director shall issue a written notice of intent to revoke to the permittee prior to final revocation. Revocation shall become final within thirty-five (35) days of receipt of the notice by the permittee, unless within that time the permittee request an administrative hearing in writing to the Board of Environmental Quality pursuant to the Rules of Administrative Procedures contained in IDAPA 58.01.23.
8. If, pursuant to Idaho Code § 67-5247, the Director finds the public health, safety or welfare requires emergency action, the Director shall incorporate findings in support of such action in a written notice of emergency revocation issued to the permittee. Emergency revocation shall be effective upon receipt by the permittee. Thereafter, if requested by the permittee in writing, a revocation hearing before the Board of Environmental Quality shall be provided. Such hearings shall be conducted in accordance with the Rules of Administrative Procedures contained in IDAPA 58.01.23.
9. The provisions of this permit are severable and if a provision or its application is declared invalid or unenforceable for any reason, that declaration will not affect the validity or enforceability of the remaining provisions.
10. The permittee shall notify the DEQ at least six (6) months prior to permanently removing any permitted land application facility from service, including any treatment, storage, or other facilities or equipment associated with the land application site. Prior to commencing closure activities, the permittee shall: a) participate in a pre-site closure meeting with the DEQ; b) develop a site closure plan that identifies specific closure, site characterization, or cleanup tasks with scheduled task completion dates in accordance with agreements made at the pre-site closure meeting; and c) submit the completed site closure plan to the DEQ for review and approval within forty-five (45) days of the pre-site closure meeting. The permittee must complete the DEQ approved site closure plan.

**Appendix 1**  
**Environmental Monitoring Serial Numbers**  
**HYDRAULIC MANAGEMENT UNITS**

Serial Number	Description	Acres
MU-016101	Percolation Pond	3.55

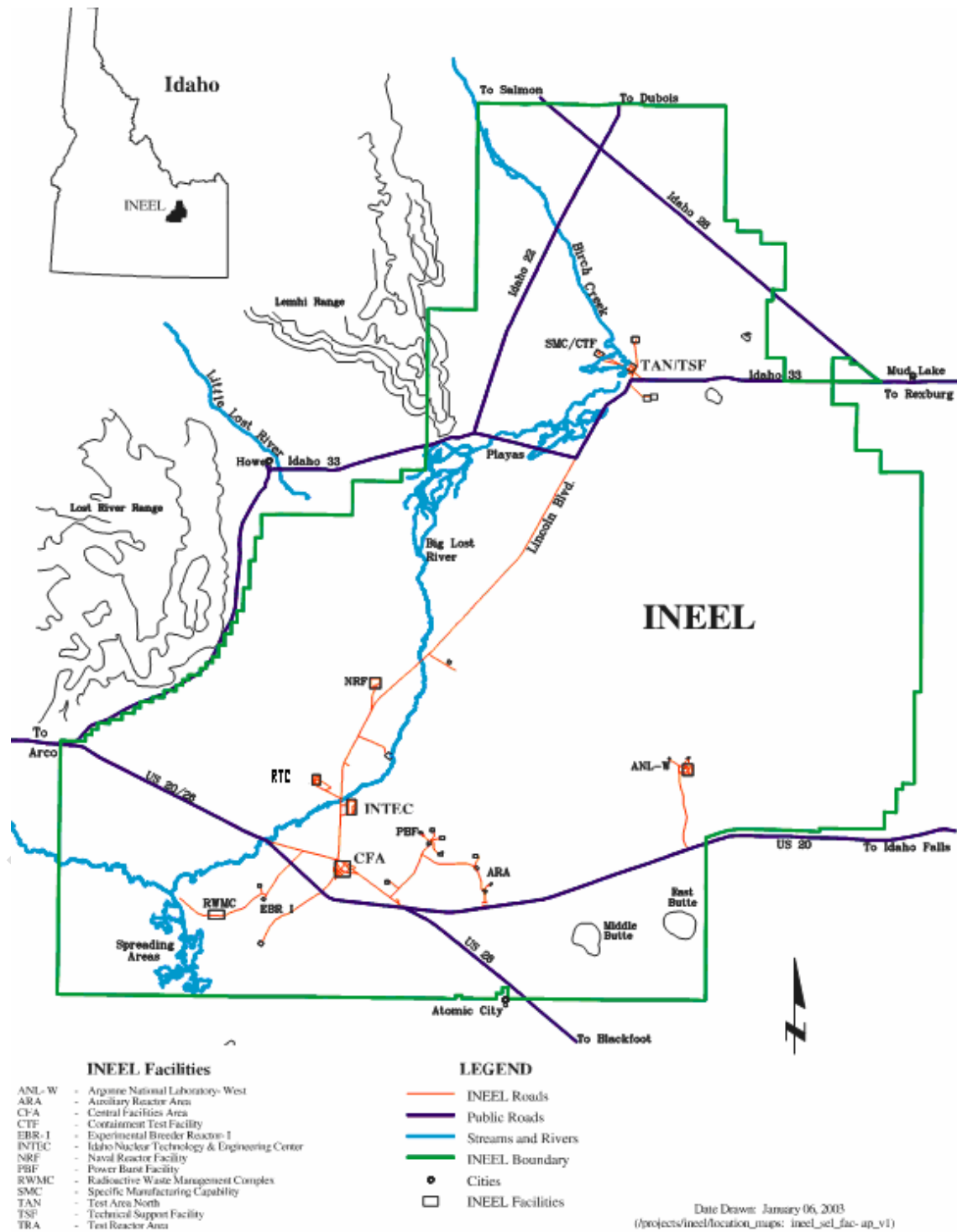
**WASTEWATER SAMPLING POINTS**

Serial Number	Description
WW-016101	Grab sample and 24-hour composite sample of CWP effluent prior to discharge into the new percolation ponds at the cold waste sample pit (TRA-764)

**GROUND WATER MONITORING**

Serial Number	Description	Compliance Point?
GW-016101	TRA-03, up/cross-gradient regional aquifer	No
GW-016102	USGS-065, down-gradient regional aquifer	Yes
GW-016103	TRA-07, down-gradient regional aquifer	Yes
GW-016104	USGS-076, down/cross-gradient regional aquifer	Yes
GW-016105	TRA-08, down-gradient regional aquifer	Yes
GW-016106	Middle-1823, down-gradient regional aquifer	Yes

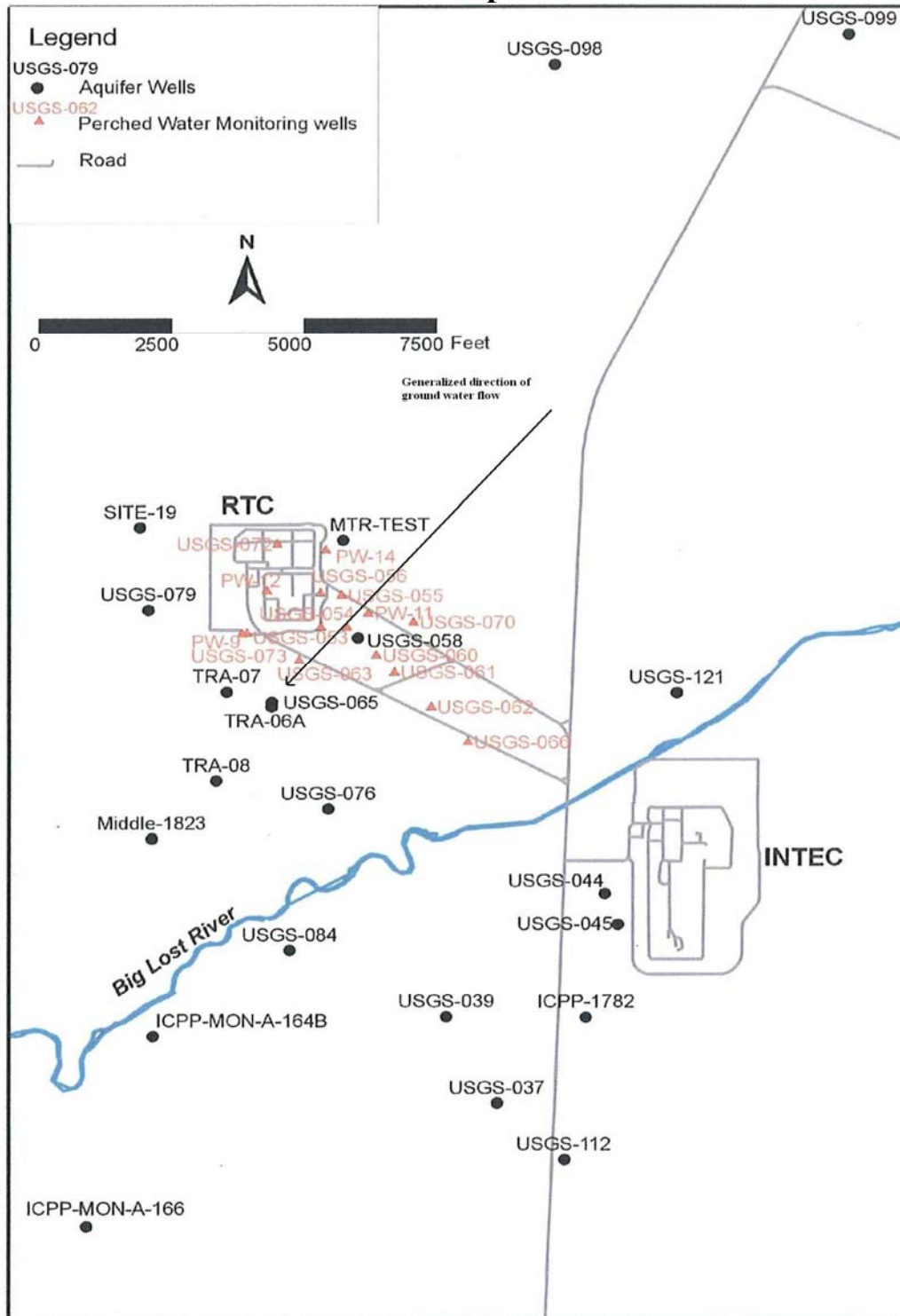
## Appendix 2 Site Maps



Source: Email attachment from BBWI to DEQ, October 12, 2004.



## Appendix 2 Site Maps



Source: DOE-ID, Groundwater Monitoring Plan for the Reactor Technology Complex Operable Unit 2-13, March 2007

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